IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Gerd Hofmann et al.	Art Unit	: 2833
Serial No.	: 10/518,907	Examiner	: Felix O. Figueroa
Filed	: October 21, 2005	Conf. No.	: 5392
Title	: BRANCHING DEVICE FOR AN ELECTRIC LINE		

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SUPPLEMENTAL BRIEF BRIEF ON APPEAL

Appellants hereby submit this Supplemental Brief in Appeal in response to the USPTO Notification found on PAIR in December of 2008. The Patent Appeals Specialist indicated that the Notification appeared to have been erroneously entered into the system without being mailed, and that a proper Notification will be sent shortly. *See* Applicant Interview Summary of December 22, 2008. To avoid confusion or accidental abandonment, appellants hereby preemptively respond to the Notification that is to be mailed (and within six months of the date of the non-mailed Notification found on PAIR).

All of the claims are appealable, having been twice-rejected in office actions mailed May 3, 2006 (non-final), September 27, 2006 (final), April 12, 2007 (non-final), September 27, 2007 (final), and January 2, 2008 (non-final).

(1) Real Party in Interest

The real party in interest is Cooper Crouse-Hinds GMBH, the assignee of this application.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

Claims 1 and 25-45 are pending, of which claim 1 is independent. Claims 2-24 have been canceled. All of pending claims 1 and 25-45 have been rejected, and the rejections of all of pending claims 1 and 25-45 have been appealed.

(4) Status of Amendments

The claims have not been amended subsequent to the non-final rejection dated January 2, 2008. A listing of the pending claims is attached.

(5) Summary of Claimed Subject Matter

The following summarizes the claims with references to particular portions of the specification and drawings. The references to the specification and drawings are meant to be exemplary, and not limiting.

In one aspect, as recited in independent claim 1 and with reference to Figs 1, 2, and 3, a branching device (Fig. 1, element 1) for use with at least one electric line includes a housing device (Fig. 1, element 2) that includes a housing base section (Fig. 1, element 3) and a housing upper section (Fig. 1, element 4) to be connected with each other. At least one electrically conducting wire terminal (Fig. 1, element 11) that provides a branching contact is accommodated in a holder (Fig. 1, element 10; Fig. 2, element 26), and includes contact lips with cutting edges (Fig. 3, elements 44 and 46) for cutting through insulation of a wire to be connected to the wire terminal (Fig. 1, element 11). The at least one wire terminal further includes at least one connecting lug (Fig. 1, element 15), a through-channel (Fig. 3, element 47) for the uninterrupted passage of the wire, and at least one holding-down clamp (Fig. 1, element 17) which holds the wires in the through-channel (Fig. 3, element 47) of the wire terminal and which is inserted in the housing (Fig. 1, element 2). At least one of the contact lips is located diagonally (Fig. 3, element 43) to the through-channel so that the tip of the edge of the contact lip protrudes into the through-channel. *See* page 9 of the specification, bottom paragraph. At least one of the contact lips is flexible in a direction pointing away from the through-channel. *See* page 9 of the specification, bottom paragraph. The holding-down clamp (Fig. 1, element 17) exhibits a transverse plate (Fig. 1, element 18) that closes off the through-channel and has an opening through which the connecting lug (Fig. 1, element 15) of the wire terminal (Fig. 1, element 11) protrudes. *See* page 6 of the specification, bottom full paragraph; page 11 of the specification, first full paragraph.

(6) Grounds of Rejection to be Reviewed on Appeal

a. Claims 1, 25-40 and 43-45 under U.S.C. § 103

Claims 1, 25-40 and 43-45 have been rejected under U.S.C. § 103 as being anticipated by U.S. Patent No. 6,019,627 ("Embo") in view of U.S. Patent No. 5,257,945 ("Heng").

b. Claims 41 and 42 under U.S.C. § 103

Claims 41 and 42 have been rejected under U.S.C. § 103 as being unpatentable over Embo and Heng in view of U.S. Patent No. 6,071,145 ("Toly").[1]

(7) Argument

I. Embo and Heng, alone or in any proper combination, do not describe or suggest all of the limitations of independent claim 1.

Referring to independent claim 1, appellants initially note that the that the device is directed to providing a branching line and is usable, for example, in retrofitting existing lines. *See* specification, page 1, second paragraph. For ease of understanding, appellants refer to an exemplary implementation included in Fig. 1 of the application.[2]

Fig. 1 shows a holding-down clamp (elements 17 and 18) inserted into the housing of the device:

[1] Although the Office Action initially refers to claims 42 and 43 in the 35 U.S.C. § 103 rejection involving the Toly reference, the Office Action discusses subject matter related to claims 41 and 42 in detail. *See* Office Action, page 6. Moreover, all claims except for 41 and 42 are rejected based upon Embo in view of Heng. See Office Action, page 2. As such, appellants assume claims 41 and 42 are the intended claims to be rejected under the grounds of 35 U.S.C. § 103 involving the Toly reference.

[2] The following excerpts from the application are for exemplary purposes only. Appellant notes that neither the excerpted figure nor cited portions of the specification should be read into the claims, which stand as novel over the cited references based on their own features, as described in detail below.

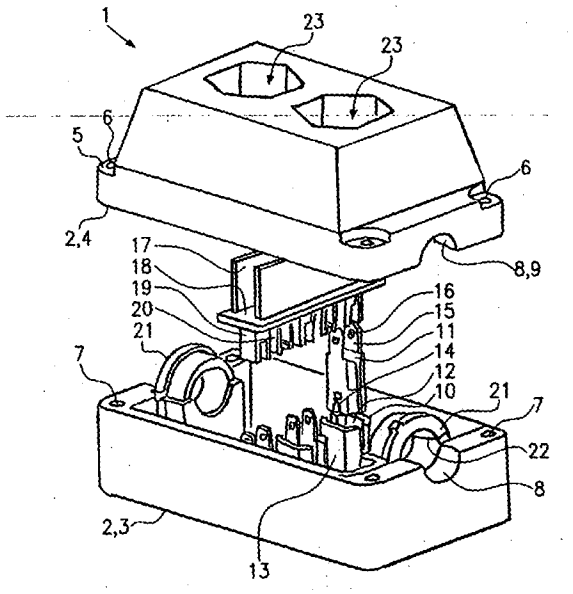


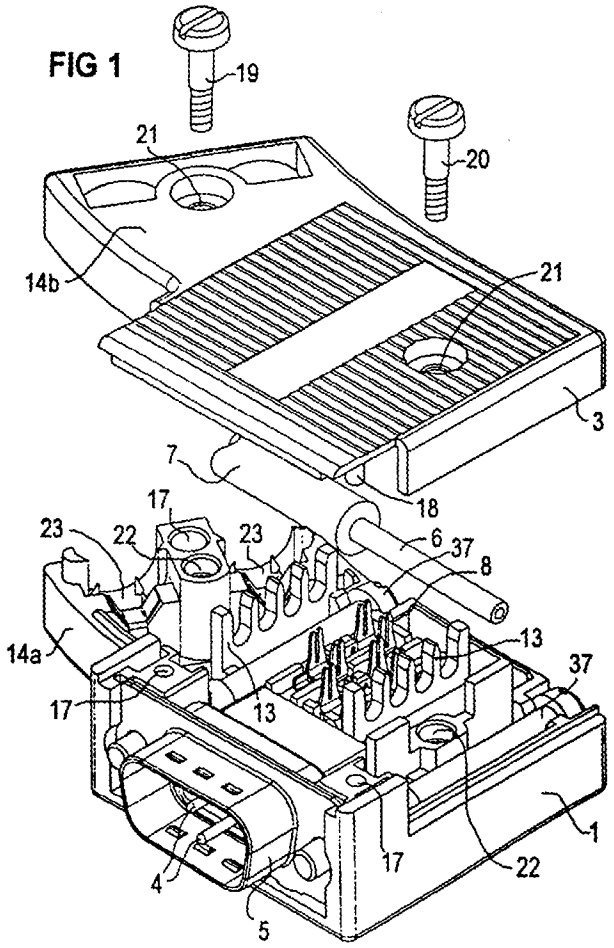
FIG. 1

In Fig. 1, the holding-down clamp can be used to hold a wire which is in the through-channel of the wire terminal to aid in the cutting operation of cutting edges (e.g., a wire that passes through the rings 21 and a through channel 11 of the connecting lug 15). *See* page 11 of the specification, first full paragraph. To this end, the holding-down clamp includes a transverse plate for closing off the through channel and openings to let the connecting lugs 15 through while clamping the wire.

Returning to the claim language, appellants request reversal of the rejections because Embo and Heng, alone or in any proper combination, do not describe or suggest the claimed holding-down clamp as recited by: "the at least one wire terminal further includes … at least one holding-down clamp which holds the wires in the through-channel of the wire terminal and which is inserted in the housing" and "exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes."

In rejecting the claimed holding-down clamp, the Office Action relies upon disclosure of Embo, which is directed to a plug connector that includes a lower part and a cover including a number of insulation displacement contacts (IDCs) and is usable for connecting cables without

stripping insulation. *See* Embo, col. 2, lines 20-26 and Fig. 1, numbers 1 and 3. Fig. 1 of Embo is reproduced below:



In Embo, the IDCs are used for inserting a conductor 6 of a cable 7 and include slot and fork limbs 11 and guides 13. *See* Embo, Figs. 1 and 3. The slot and fork limbs 11 are used to cut into the insulation and to make contact with the IDC contacts. *See* Embo, column 5, lines 25-30.

Nowhere does Embo describe or suggest the holding-down clamp, which, as claimed, holds the wire in the though channel, is inserted in the housing, and exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes. In particular, as shown in Fig. 1 of Embo above, no such clamp is inside the housing and used to hold the conductor in the fork limbs 11 or guides 13. Further, no such clamp includes a transverse plate to close off the through channel with an opening for connecting lugs to protrude.

Rather, in Embo, the housing itself forms the enclosure holding the wires and does so without the fork limbs 11 or guides 13 protruding through the housing. Specifically, Embo describes that the "conductors 6 are pressed into the IDC contacts 8 and make contact with the IDC contacts, by the underneath of the cover 3, as a result of the screws 19, 20 being screwed in and tightened." See Embo, col. 6, lines 10-23.

Page 4 of the Office Action asserts that the holding-down clamp is shown by the combination of the plug body 5 emerging from the side of the housing and the guides 13 inside the housing. However, neither the plug body 5 nor the guides 13 in Embo disclose or suggest that "the at least one wire terminal further includes … at least one holding-down clamp which holds the wires in the through-channel of the wire terminal and which is inserted in the housing" and "exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes," as recited by independent claim 1.

In Embo, element 5 is a plug body, shown outside the housing, and element 13 are guides inside the housing. The plug body 5 does not cover, enclose, or in any other way hold the IDC 6 within the guides 13. Rather, the plug body 5 is simply used to "connect at least one insulated individual conductor 6 of a connecting cable 7 which can be inserted in the housing 3,1." *See* Embo, col. 5, lines 7-10. In contrast to the plug body 5 on the side of the housing, claim 1 recites the holding-down clamp is "inserted in the housing." *See* Embo, Fig. 1. Moreover, the claimed holding-down clamp "holds the wires in the through-channel of the wire terminal." Embo's plug body 5 neither is inserted in the housing nor holds the wires in the guides 13.

Also, nowhere does the plug body 5 include an opening in a transverse plate through which a connecting lug protrudes. While the Office Action cites to plug contact 4 of Embo as disclosing the claimed connecting lug, the plug contact 4 does not describe the connecting lug as claimed. *See* Office Action, page 2. Specifically, claim 1 recites that the connecting lug is included in a wire terminal with the through-channel for the uninterrupted passage of the wire and the holding-down clamp. The plug contact 4 of Embo is not in such a wire terminal. Rather, the plug contact 4 is in the plug body 5 which does not include either an uninterrupted passage of the wire or the holding down clamp. Rather than provide uninterrupted passage of the wire, the plug contact 4 and plug body 5 is used to connect separate wires. *See* Embo, col. 5, lines 10-13.

Moreover, as described above, the plug body 5 does not include or correspond to the claimed holding-down clamp.

Consequently, Embo does not disclose or suggest "the at least one wire terminal further includes … at least one holding-down clamp which holds the wires in the through-channel of the wire terminal and which is inserted in the housing" and "exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes," as recited by independent claim 1.

Noting that Embo fails to disclose "the contact lips being located diagonally to the through-channel," the Office Action relies upon Heng in rejecting this additional claim language. *See* Office Action, page 3. Notably, Heng does not describe or suggest, and the Office Action does not purport that Heng describes or suggests, the claimed holding-down clamp.

Heng is directed to a connection terminal with a single slotted connection unit 102. *See* Heng, Fig. 1. The unit includes two slots or slits 5 and 6 at opposite ends for retaining and stripping a wire. *See* Heng, Fig. 1. Corresponding to the slot or slit, a first flared opening with sharp sloping edges 20 and 21 for a first wire section is used for stripping a wire. *See* Heng, Fig. 2-3. Neither the connection unit 102 nor the connection terminal in its entirety, describe or suggest the claimed holding-down clamp, nor does the Office Action contend that they do so. Rather, the Office Action relies upon Heng in remedying Embo's failure to describe or suggest "contact lips being located diagonally to the through-channel." *See* Office Action, page 3.

Consequently, Heng, like Embo, does not disclose or suggest "the at least one wire terminal further includes … at least one holding-down clamp which holds the wires in the through-channel of the wire terminal and which is inserted in the housing" and "exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes," as recited by independent claim 1.

Accordingly, for at least these reasons, the Office has not met its burden of establishing a *prima facie* case of obviousness. Therefore, the obviousness rejections of independent claims 1 and its dependent claims 25-40 and 43-45 should be reversed.

II. Toly does not remedy failure of Embo and Heng, alone or in any proper combination, to describe or suggest all of the limitations of independent claim 1, from which each of claims 41 and 42 depend.

Toly is said to disclose "the use of sealing rings (49) at the outlets of the line to protect the interior connections from dust and moisture." *See* Office Action, page 6. Even assuming only for the sake of argument that the Office's contention is correct, Toly's disclosure of sealing rings does not remedy the failure of Embo and Heng in describing or suggesting the subject matter of independent claim 1, including "the at least one wire terminal further includes … at least one holding-down clamp which holds the wires in the through-channel of the wire terminal and which is inserted in the housing" and "exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes."

Toly does not remedy the failure of Embo and Heng to describe or suggest the subject matter of independent claim 1. Also, the Office Action does not rely on Toly as describing or suggesting the features recited by independent claim 1. Accordingly, the rejections of claims 41 and 42, which each depend from independent claim 1, should be reversed.

Conclusion and Relief

Accordingly, for at least these reasons, appellant requests reversal of the pending rejections.

No fee is believed due at this time. The Director is hereby authorized to charge any fees under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account No. 06-1050. The Director also is hereby authorized to apply any additional fees or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Appendix of Claims

1. (Previously Presented) A branching device for at least one electric line, the branching device comprising:

a housing comprising a housing base section and a housing upper section to be connected with each other;

at least one electrically conducting wire terminal that provides a branching contact is accommodated in a holder, and includes contact lips with cutting edges for cutting through insulation of a wire to be connected to the wire terminal;

wherein the at least one wire terminal further includes at least one connecting lug, a through-channel for the uninterrupted passage of the wire, and at least one holding-down clamp which holds the wires in the through-channel of the wire terminal and which is inserted in the housing;

at least one of the contact lips is located diagonally to the through-channel so that the tip of the edge of the contact lip protrudes into the through-channel;

at least one of the contact lips is flexible in a direction pointing away from the through-channel; and

the holding-down clamp exhibits a transverse plate that closes off the through-channel and has an opening through which the connecting lug of the wire terminal protrudes.

2-24. (Canceled)

25. (Previously Presented) A branching device according to claim 1, wherein the wire terminal exhibits a generally octagonal outline with two opposing longer sides, two shorter sides orthogonal to the longer sides, and diagonal sides situated between the longer and shorter sides, and wherein the holder includes a corresponding octagonal locating space for accommodating the wire terminal.

26. (Previously Presented) A branching device according to claim 1, wherein the contact lips are generally aligned with the diagonal sides of the wire terminal.

27. (Previously Presented) A branching device according to claim 1, wherein the through-channel runs in a straight line through the wire terminal.

28. (Previously Presented) A branching device according to claim 1, wherein the wire terminal is accommodated releasably in the holder.

29. (Previously Presented) A branching device according to claim 1, wherein the device includes a number of wire terminals corresponding to at least a number of wires to be branched.

30. (Previously Presented) A branching device according to claim 1, wherein the contact lips are provided in pairs in each case on a wire terminal.

31. (Previously Presented) A branching device according to claim 30, wherein the spacing between two paired contact lips is less than or equal to the diameter of a wire to be connected to the wire terminal.

32. (Previously Presented) A branching device according to claim 30, wherein the edges of paired contact lips facing the through-channel run parallel to one another at least in sections.

33. (Previously Presented) A branching device according to claim 30, wherein two paired contact lips together form an entry section for the wire, with a spacing between the contact lips widening towards an entry side of the through-channel.

34. (Previously Presented) A branching device according to claim 1, wherein a notch is provided between the wire terminal and its holder.

35. (Previously Presented) A branching device according to claim 1, wherein the holder of the wire terminals is attached releasably to the housing.

36. (Previously Presented) A branching device according to claim 1, further comprising multiple wire terminals and a common holder for all of the wire terminals.

37. (Previously Presented) A branching device according to claim 1, further comprising at least one common holding-down clamp for all wires.

38. (Previously Presented) A branching device according to claim 1, wherein the holding-down clamp represents a closure of the openings formed between the contact lips.

39. (Previously Presented) A branching device according to claim 1, wherein the holding-down clamp can be latched to the holder of the wire terminal.

40. (Previously Presented) A branching device according to claim 1, wherein the holding-down clamp can be latched to the housing.

41. (Previously Presented) A branching device according to claim 1, wherein seals are provided on the housing at the outlets for the line.

42. (Previously Presented) A branching device according to claim 41, wherein the seals are formed as sealing rings with a side cut for inserting the line.

43. (Previously Presented) A branching device according to claim 1, wherein the housing is assembled from a housing base section and a housing upper section.

44. (Previously Presented) A branching device according to claim 43, wherein the housing base section and the housing upper section can be screwed together.

45. (Previously Presented) A branching device according to claim 1, wherein strain relief is provided on the housing at the outlets for the lines.

Evidence Appendix

None.

Related Proceedings Appendix

None.